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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,710	05/03/2005	Naozumi Arimoto	CU-4190 RJS	6204
26530 7590 04/29/2008 LADAS & PARRY LLP 224 SOUTH MICHIGAN AVENUE SUITE 1600 CHICAGO, IL 60604				
EXAMINER				
VASISTH, VISHAL V				
ART UNIT		PAPER NUMBER		
1797				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/533,710

**Applicant(s)**

ARIMOTO ET AL.

**Examiner**

VISHAL VASISTH

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☒ Claim(s) 10-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☒ Information Disclosure Statement(s) (PTO/SE/IB)
- Paper No(s)/Mail Date 05/03/2005 and 06/23/2005.
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION*****Specification***

1. Claims 10-12 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 10-12 states "any one of claims 1 to 9," which is not a proper multiple dependent form. See MPEP 608.01(n).
2. Claims 10-12 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim should refer to other claims in the alternative only. See MPEP § 608.01(n). Accordingly, the claims 10-12 are not been further treated on the merits.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 11 provide for the use "of the lubricating oil composition . . . in an automatic transmission" but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 11 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper

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process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Bell et al., US Patent Application Publication No. 2003/0148897 (hereinafter referred to as US '897).

Regarding claims 1-6, US '897 discloses a lubricant composition comprising;

(a) a mineral oil (Para. [0050]) or a synthetic oil (Para. [0052]),  
(b) 0.5 to about 0.10 wt% of boron (0.002% or more by mass in terms of the content of boron) (Para. [0041] and [0114]) in a borated bis-succinimide (nitrogen-containing compound) (Para. [0037]-[0038]) having a polyalkenyl moiety with a number average molecular weight of between 1800 and 3000 (having at least one alkenyl group with a number-average molecular weight of 1700 or more) (Para. [0042]) and 0.15 to 0.24 wt% of the content of nitrogen in

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the dispersant composition (amount between 0.01 to 0.20% by mass in terms of the content of nitrogen) (Para. [0041]), and

(c) viscosity modifiers such as polyisobutylene, copolymers of ethylene and propylene, polymethacrylates which are all disclosed in the instant specification in Paragraph [0054] (viscosity index improver having a weight-average molecular weight of 40,000 or less) (Para. [0078]). The lubricant composition can be set to have a viscosity index of 160 or more and the kinematic viscosity of the composition set to a range between 20 to 30 mm<sup>2</sup>/s at 40°C this is because the lubricant composition of US '897 contains all of the components of claim 1 (Para [0099]).

Regarding claim 7, US '897 discloses a lubricant composition wherein the B/N ratio is from about 0.05 to 0.24 wt% (the B/N ratio is from 0.01 to 3) (Para. [0041] and Table 1).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
9. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over US '897 in view of Ozbalik, US Patent Application Publication No. 2003/0153469 (hereinafter referred to as US '469).

Regarding claim 8, US '897 discloses a lubricant composition as in claim 1 comprising, a borated bis-succinimide (Para. [0037]-[0038]), but does not disclose a poly(iso)butenyl group having a number-average molecular weight of 2000 or more. US '469 discloses a fluid additive for automatic or continuously variable transmissions. The fluid additive comprises a boron-containing succinimide with alkyl or alkenyl substitutions, such as a polyisobutene with a molecular weight of about 500 to 2500 (a boron-modified compound of a bis type succinimide having a poly(iso)butenyl group having a number-average molecular weight of 2000 or more) (Para. [0044]-[0046]). It would have been obvious to one of ordinary skill in the art at the time of invention to modify US '897 with a polyisobutene in order to reduce aerosol formation.

Regarding claim 9, US '897/US '469 disclose a lubricant composition as in claim 1 comprising, a borated bis-succinimide with an alkyl or alkenyl substitutions, such as a polyisobutene with a molecular weight of about 500 to 2500 (a boron-modified compound of a bis type succinimide having a poly(iso)butenyl group having a number-average molecular weight of 900 or more and less than 2000 and having a poly(iso)butenyl group having a number-

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average molecular weight of 2000 or more) (US '469, Para. [0044]-[0046])). It would have been obvious to one of ordinary skill in the art at the time of invention to use a bis-succinimide with two different alkyl or alkenyl substitutions with different molecular weight polyisobutene groups in order to increase the deposit control performance of the composition.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Ozbalik, US Patent No. 6,627,584, Ishida et al., US Patent Application Publication Nos. 2001/0010293, and 2002/0072478.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VISHAL VASISTH whose telephone number is (571)270-3716. The examiner can normally be reached on M-R 8:30a-5:30p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571)272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

VVV

/Glenn A Caldarola/  
Acting SPE of Art Unit 1797